

Date: Wednesday, 3/21/2007 1:59:57 PM
 User: Kim Johnston

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: SHORT STEP ASSEMBLY
Job Number	: 31405		
Estimate Number	: 11672		
P.O. Number	: N/A	Part Number	: D350591121
This Issue	: 3/21/2007 S.O. No. : N/A	Drawing Number	: D2351 REV E
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: N/A Type : LARGE FAB ASSY	Drawing Revision	: E
Previous Run	: 30068	Material	: N/A
Written By	: <u>07.03.21</u>	Due Date	: 4/10/2007 Qty: 6 Um: Each
Checked & Approved By	: <u>07.03.21</u>		
Comment	: Est Rev: E 02.10.21 Re-format; Incorporated D2351-041 IPP K J/R/F est rev. F 06.02.23 added grinding EC		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description:
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1.0	DC	DOCUMENT CONTROL
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KS 07.03.26 (6)

Comment: DOCUMENT CONTROL

Photocopy bluefile and type labels as per PPP D350-591-121CHG003

07/04/05

2.0	D2244116	Step Extrusion
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Comment: Qty.: 0.5000 Each(s)/Unit Total: 3.0000 Each(s)

Pick:

Qty Part Number Description Batch

0.5 D2244-128 Extrusion

B31405-2
B28216 B30068-4

B28216

FF 07-04-02

3.0	LARGE FAB 1	LARGE FABRICATION RESOURCE 1
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Comment: LARGE FABRICATION RESOURCE 1

1-Cut D2244-128 extrusion to 55.32" long as per Dwg D2351 using cutting table setup DT8185-G

2-Drill extrusion per Dwg D2351 using Jig DT8230 for rivets.

3-Deburr

FF 07-04-04

4.0	BENDING	BENDING MACHINE
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Comment: BENDING MACHINE

Bend per Dwg D2351 using Bend Program D23561dD FT011

EL 7-4-3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Drawing Name: SHORT STEP ASSEMBLY

Job Number: 31405

Part Number: D350591121

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC5

INSPECT WORK TO CURRENT STEP



1 setup

③

Comment: INSPECT WORK TO CURRENT STEP

DP

2-4-3

6.0

D28501

End Bracket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 6.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D2850-1 End Bracket 329848

PE.07.04.04 6

7.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Bevel Fwd and Aft end for welding

2-Weld Aft End Bracket per QSI 004 & Dwg D2351 using Welding Jig DT8033

AR Aluminum Rod M102239
M102225

3-Do not Grind Flush

PE.07.04.04 6
PE.07.04.04 6

8.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

07/04/04/ ③

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

2074.04

10.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

PE.07.04.04 6

11.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

PE.07.04.04 6

W/O:		WORK ORDER CHANGES					
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Process Sheet

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Drawing Name: SHORT STEP ASSEMBLY

Job Number: 31405

Part Number: D350591121

Job Number:



Seq. #:

Machine Or Operation:

Description :

12.0

D2582

Hi-Skid Step Leg Ass'y



Comment: Qty.: 1.0000 Each(s)/Unit Total : 6.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D2582

Step Leg Assy

B30813 = 3
B29922 = 3

P.E. 07.04.04 6

13.0

MS20600AD4W3

Cherry Rivets



Comment: Qty.: 16.0000 Each(s)/Unit Total : 96.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

16 MS20600AD4W3 Rivet

B14393

P.E. 07.04.04 6

14.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Rivet Leg Assembly as per Dwg D2351

P.E. 07.04.04 6

15.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

2004.04

16.0

D267334

End Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 6.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D2673-34 End Plate

B25396

P.E. 07.04.04 6

17.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Weld Fwd End Plate per QSI 004 & Dwg D2351

A/R

Aluminum Rod M100237

2-Grind end cap flush per dwg D2351

P.E. 07.04.04 6

P.E. 07.04.04 6

W/O:		WORK ORDER CHANGES					
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Job Number: 31405

Part Number: D350591121

Job Number:



Seq. #:

Machine Or Operation:

Description :

18.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

07/04/05

(6)

19.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

07/04/05

20.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Touch up Alodine

ML/FX

07-04-05

(6)

21.0

POWDER COATING

POWDER COATING



M103706



(6X)

Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

m-r

07/04/05

22.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Wing Walk per Dwg D2351 and QSI 005 4.4

Batch: m103707

FX

07/04/05

(6)

23.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

7/4/5

(6)

24.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

25.0

D22301

Mounting Lug



Comment: Qty.: 1.0000 Each(s)/Unit Total : 6.0000 Each(s)

Pick:

Packing KitQtyPart Number Description Batch
1 D2230-1 Mounting Lug 1530155

7/4/5 59

W/O:		WORK ORDER CHANGES					
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Drawing Name: SHORT STEP ASSEMBLY

Job Number: 31405

Part Number: D350591121

Job Number:



Seq. #:

Machine Or Operation:

Description :

26.0

D22303

Mounting Lug



Comment: Qty.: 1.0000 Each(s)/Unit Total : 6.0000 Each(s)

Pick:

Packing KitQtyPart Number Description Batch

1 D2230-3 Mounting Lug

1630273

7/4/5

27.0

D2856400

Abrasion Strip



Comment: Qty.: 0.6000 f(s)/Unit Total : 3.6000 f(s)

Pick:

Packing KitQtyPart Number Description Batch

1 D2856-400 7.20" Abrasion Strip

927850

28.0

AN337A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 12.0000 Each(s)

Pick:

Packing KitQtyPart Number Description Batch

2 AN3-37A Bolt

M14478

M102 339

(9)

29.0

AN413A

Bolt



Comment: Qty.: 3.0000 Each(s)/Unit Total : 18.0000 Each(s)

AN4-13A

Batch M103363

30.0

AN960JD10

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 24.0000 Each(s)

Pick:

Packing KitQtyPart Number Description Batch

4 AN960JD10 Washer

M103641

31.0

AN960JD416

Washer



Comment: Qty.: 6.0000 Each(s)/Unit Total : 36.0000 Each(s)

Pick:

Packing KitQtyPart Number Description Batch

6 AN960JD416 Washer

M102927

7/4/5 59

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: ☒ Date: 07/04/05

QA: N/C Closed: _____ Date: _____

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Job Number: 31405

Part Number: D350591121

Job Number:



Seq. #:

Machine Or Operation:

Description :

32.0

MS21042L3

Nut



Comment: Qty.: 2.0000 Each(s)/Unit Total : 12.0000 Each(s)

Pick:

Packing KitQtyPart Number Description Batch
2 MS21042L3 Nut (or -3) *M102658*

33.0

MS21042L4

Nut



Comment: Qty.: 3.0000 Each(s)/Unit Total : 18.0000 Each(s)

Pick:

Packing KitQtyPart Number Description Batch
3 MS21042L4 Nut (or -4) *M103914*

7/4/5 SG

34.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

C 7/4/5

(6)

C207104105

35.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D350-591-121

Location: *C*

PPP Rev: *C*

C 7/4/5

7/4/5 SG

(6)

36.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

C207104105

Job Completion



C207104105

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN KE	DRAWN BY PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D2351	REV. E SHEET 1 OF 2
DATE 05.11.14		TITLE HIGH FLOAT STEP ASSEMBLY	SCALE NTS
A	95.02.15	NEW ISSUE	
B	97.05.22	END CAPS CHANGED	
C	97.07.23	ADDED BUSHING AND FACING INFO	
D	98.12.17	CHANGED TO BEND, D2850 REPLACES D2357 & D2358, INCORP. DEO 9084	
E	05.11.14	UPDATE FINISHING NOTE	

D2351 HIGH FLOAT STEP ASSEMBLY PARTS LIST

Part No.	Description	QTY -041	QTY -042
D2351-041	High Float Step Assembly (LH)	X	
D2351-042	High Float Step Assembly (RH)		X
D2244-55.4	STEP EXTRUSION*	1	1
D2582	STEP LEG ASSEMBLY	1	1
D2673-34	STEP END PLATE	1	1
D2850-1	END BRACKET	1	
D2850-2	END BRACKET		1
MS20600AD4W3	RIVETS	16	16

*cut per drawing

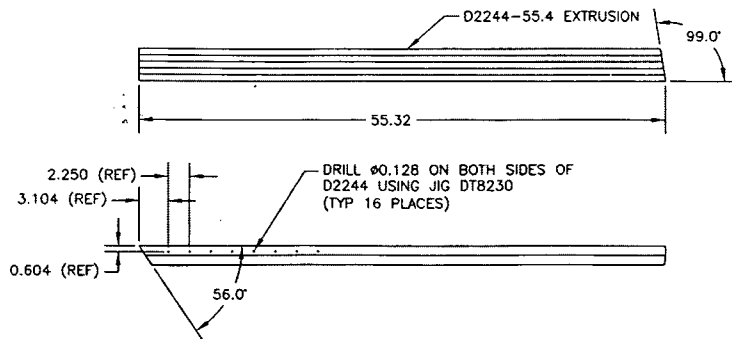
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RETURN TO
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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 31405

RELEASED
05.11.28 [Signature]

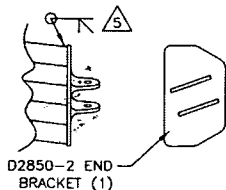
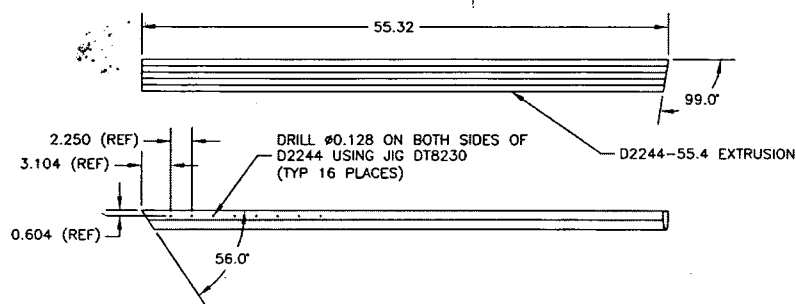
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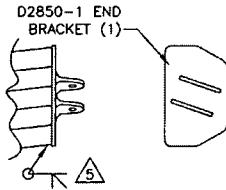
D2351-2 CUTTING/DRILLING DETAIL
RIGHT STEP



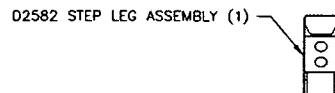
D2351-1 CUTTING/DRILLING DETAIL
LEFT STEP



DETAIL A
SCALE: 1:4



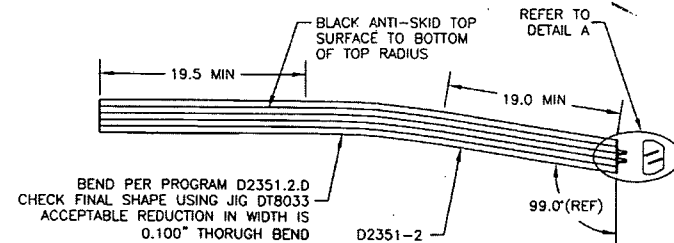
DETAIL B
SCALE: 1:4



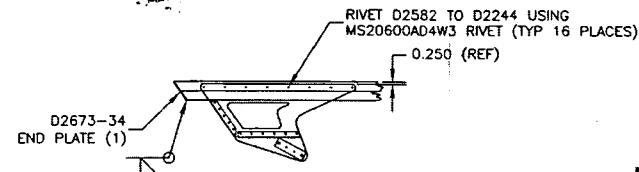
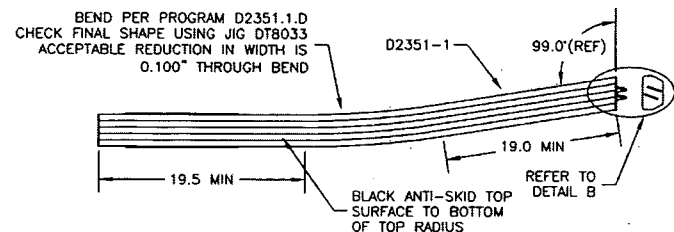
GENERAL NOTES

- 1) WELD PER DART QSI 004
 - 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT GLOSS WHITE (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
 - 3) ALL DIMENSIONS ARE IN INCHES
 - 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5 CHAMFER D2244 EXTRUSION 0.075"x45" BEFORE WELDING D2850-1 OR D2850-2 IN PLACE. DO NOT GRIND FLUSH.

D2351-042 BENDING/ASSEMBLY DETAIL
RIGHT STEP



D2351-041 BENDING/ASSEMBLY DETAIL
LEFT STEP



RELEASED
05.11.78

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DESIGN KE	DRAWN BY PH	DART DART AEROSPACE LTD. WARRICKSLEY, ONTARIO, CANADA	REV. E
CHECKED #	APPROVED #	DRAWING NO. D2351	SHEET 2 OF 2
DATE 05.11.78	TITLE HIGH FLOAT STEP ASSEMBLY	SCALE 1:12	

NO. 1405
WOP
1405
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